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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/782,752	02/23/2004	Sang Ho Shin	1594.1345	6177

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EXAMINER

EARLY, MICHAEL JACOBY

ART UNIT	PAPER NUMBER
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3744

DATE MAILED: 10/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/782,752

Applicant(s)

SHIN, SANG HO

Examiner

Michael J. Early

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,6,8-15 and 17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10,12-15 and 17 is/are allowed.
- 6) ☒ Claim(s) 1,2,6,8,9 and 11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 6, 8, 9 and 11 are rejected under 35 U.S.C. 102(e) as being anticipated by Adams et al. (U.S. 6,497,255 B1).

Regarding claims 1, 6 and 8; Adams et al. disclose:

- a cabinet (12 – air handling unit modular sections) having a bottom panel (39 – top cover);
- an outdoor heat exchanger (30 – air conditioning heat exchanger coil) installed in the cabinet (as seen in Figure 1);
- a support member (75, 80, 82 – reinforcing members, stanchion, horizontal beam) supporting the outdoor heat exchanger with a space between a lower end of the outdoor heat exchanger and the bottom panel of the cabinet (as seen in Figure 6), to prevent condensed water generated from the outdoor heat exchanger from being frozen (it is obvious that this space allows the condensed water to be spatially separated from the heat exchanger, which is held at a temperature that would cause the water to freeze; Figure 6);
- the bottom panel of the cabinet includes a flange (as seen in the illustration of Figure 7 below) extending upward at an edge of the bottom panel (as seen in Figure 7; Figure 7 is an enlarged cross-sectional view of the floor panel [35] as

shown in Figure 2), and wherein the support member is attached to the flange (as seen in Figure 7).

- the support member includes a fixing portion (80 – stanchion) attached to the flange (as seen in Figure 7), a support portion (82 – horizontal beam) extending from the fixing portion to support the lower end of the heat exchanger (as seen in Figures 6, 7); and an upper reinforcing portion (as seen in the first partial illustration of Figure 7 below) connected between an upper surface of the support portion and an inner surface of the fixing portion (as seen in Figure 7);
- the support member further includes a lower reinforcing portion (75 – reinforcing member) connected between a lower surface of the support portion and an inner surface of the fixing portion (as seen in Figure 7) to prevent the support portion from sagging (as seen in Figure 6);
- the fixing portion includes a fitting groove (area in which the stanchion [80] is inserted into the floor panel [35]) into which the flange is inserted to hold the support member (as seen in the second partial illustration of Figure 7 below);

Regarding claim 9, Adams et al. disclose:

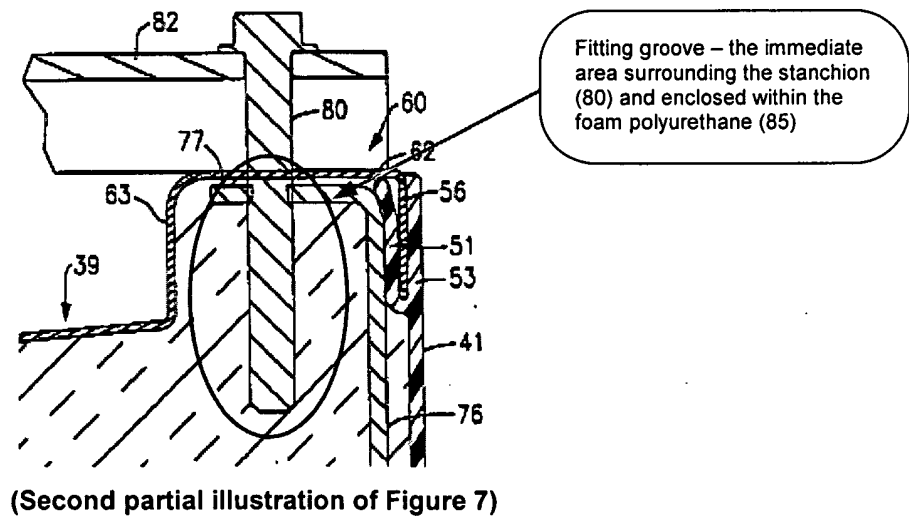
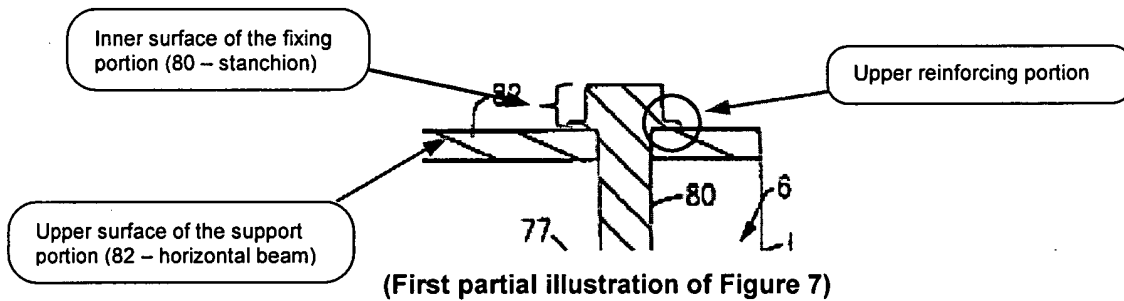
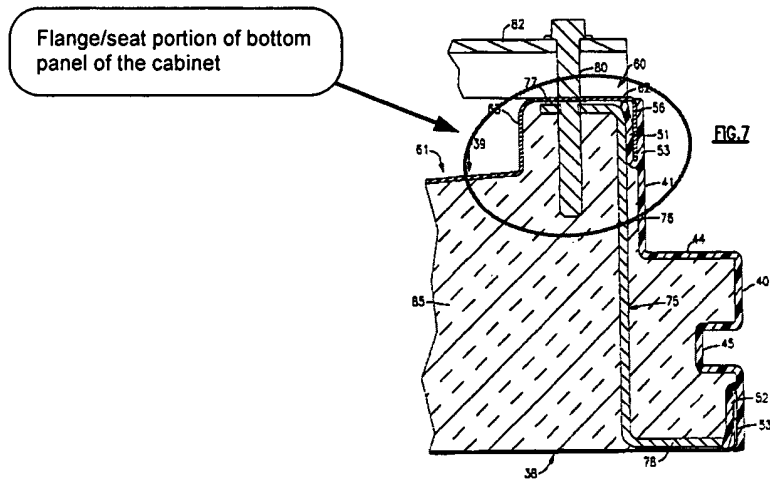
- a cabinet (12 – air handling unit modular sections) having a bottom panel (39 – top cover);
- an outdoor heat exchanger (30 – air conditioning heat exchanger coil) installed in the cabinet (as seen in Figure 1);
- a support member (82 – horizontal beam) separating a lower end of the outdoor heat exchanger from a seat portion (as seen in the illustration of Figure 7 below) of the bottom panel of the cabinet (as seen in Figure 6);
- the bottom panel of the cabinet includes a flange (as seen in the illustration of Figure 7 below) extending upward at an edge of the bottom panel (as seen in Figure 7; Figure 7 is an enlarged cross-sectional view of the floor panel [35] as shown in Figure 2), and wherein the support member is attached to the flange (as seen in Figure 7).

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- the support member includes a fixing portion (80 – stanchion) attached to the flange (as seen in Figure 7), a support portion (82 – horizontal beam) extending from the fixing portion to support the lower end of the heat exchanger (as seen in Figures 6, 7); and an upper reinforcing portion (as seen in the first partial illustration of Figure 7 below) connected between an upper surface of the support portion and an inner surface of the fixing portion (as seen in Figure 7).

Regarding claim 11, Adams et al. disclose:

- a cabinet (12 – air handling unit modular sections) having a bottom panel (39 – top cover);
- an outdoor heat exchanger (30 – air conditioning heat exchanger coil) installed in the cabinet (as seen in Figure 1);
- a support member (80, 82 – stanchion, horizontal beam) including a support portion (82 – horizontal beam), which supports a lower end of the outdoor heat exchanger (as seen in Figure 6);
- the bottom panel of the cabinet includes a flange (as seen in the illustration of Figure 7 below) extending upward at an edge of the bottom panel (as seen in Figure 7; Figure 7 is an enlarged cross-sectional view of the floor panel [35] as shown in Figure 2), and wherein the support member is attached to the flange (as seen in Figure 7).
- the support member includes a fixing portion (80 – stanchion) attached to the flange (as seen in Figure 7), a support portion (82 – horizontal beam) extending from the fixing portion to support the lower end of the heat exchanger (as seen in Figures 6, 7); and an upper reinforcing portion (as seen in the first partial illustration of Figure 7 below) connected between an upper surface of the support portion and an inner surface of the fixing portion (as seen in Figure 7).



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Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Adams et al. as applied to claim 1 above, in view of Nakada et al.

Adams et al. do not disclose:

- a heat insulating material.

As aforementioned, the evaporator from Nakada et al.'s unit is supported from beneath by a drain pan (88; corresponding to the claimed support member) and is covered with a heat insulating material (100) (see col. 3, lines 40-41; Figure 2).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the existing air conditioning unit of Adams et al. by incorporating a heat insulating material upon the components that support the apparatus' evaporator, as taught by Nakada et al., so that the evaporator will not be thermally effected by its surrounding conditions, thus providing a means to preserve the overall efficiency of the apparatus.

Allowable Subject Matter

Claims 10, 12-15 and 17 are allowed.

Response to Arguments

Applicant's arguments, see Remarks, filed 8/3/06, with respect to the rejection(s) of claim(s) 1, 3, 5-9, 11 and 16 under 35 U.S.C. 102(e) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Adams et al. (U.S. 6,497,255).

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Early whose telephone number is (571) 272-3681. The examiner can normally be reached on Monday - Friday, 7am - 4:30pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl Tyler can be reached on (571) 272-4834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MJE
10/5/06


Michael J. Early
Patent Examiner
Art Unit 3744
